

REMARKS/ARGUMENTS

This is a reply to the Final Office Action dated March 25, 2008.

Status of Claims

Claims 5, 6, 8, 13, 16, 18, 19 and 21 are currently pending in this application.

Claims 1, 2, 3, 4, 7, 9, 10, 11, 12, 14, 15, 17 and 20 have been canceled.

No claims are currently added.

Claims 16 and 19 are currently amended.

Amendments Discussion

Claims 16 and 19 incorporate the recitations of their respective dependent claims 17 and 20.

Therefore, no new issues are raised by the amendment that would require further consideration or search. No new matter is introduced. Entry of the amendment is considered appropriate at this time, and notification of such entry is respectfully requested.

Response to Anticipation Rejection of Claims 5, 6, 13 and 18 based on Langdon et al.

Claims 5, 6, 13 and 18 have been rejected under U.S.C. §102(b) as being unpatentable over Langdon et al. (U.S. Pat. No. 5,549,777). The applicants respectfully traverse.

In embodiments of the present invention, methods are provided for making a three-dimensionally imaged film laminate by extruding molten polymer or molten polymer continuous filamentary material onto a fibrous or filamentary support layer positioned on a foraminous surface of a three-dimensional image transfer. A vacuum retention means pulls a vacuum on the support layer and molten polymer through a plurality of foramina within the three-dimensional image transfer device wherein the molten polymer extruded onto the support layer *is integrated into* a fibrous or filamentary network of the support layer, resulting in an imaged film laminate. Amongst other advantages and benefits, the adhesion of the extruded molten polymer material to the support layer is greatly improved due to the *integration* of the extruded molten polymer material into the support layer (e.g., page 4, lines 11-19; page 7, lines 22-30).

“[A]nticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim.”¹

The Langdon reference does not teach that the extruded molten polymer (205) is “integrated into” nonwoven web 202. The Examiner referred to col. 11, line 50 – col. 12, line 11 and col. 5, lines 27-67 and Figs. 3 and 7 in support of the rejection. However, the referenced passage beginning on col. 11 merely states that the molten resin 205 is extruded “onto” nonwoven web 202 (col. 11, line 56-57), and Fig. 3 and its corresponding discussion at cols. 5-6 of the reference specifically states that the uppermost extruded layer 60 is “thermally bonded” to lower nonwoven layer 202 (col. 6, lines 32-45). That is, a co-extruded layer 205 (60) is deposited on the top surface of “relatively thin” lower nonwoven web 202 (62). Layer 205 (60) does not infiltrate into web 202 (62) to form an integrated structure as recited in the present claims. Instead, Langdon teaches applying sufficient force of vacuum and selection of materials in order *to form through-holes* extending through the entire thickness of multi-layer laminate 202/205 (60/62) structure, and not to integrate the extruded material 205 (60) into the lower web layer 202 (62), such as explained at col. 6, lines 7-17 and col. 11, line 67 to col. 12, line 8 of the Langdon reference.

In view of at least the above differences thereto, Langdon et al. does not identically disclose the present claimed invention, nor does Langdon et al. suggest or predict the success of the present claimed combination of features.

In view of at least the above, reconsideration and withdrawal of this rejection is requested.

Response to Anticipation Rejection of Claims 5, 6, and 16-18 based on Wright

Claims 5, 6 and 16-18 have been rejected under U.S.C. §102(b) as being unpatentable over Wright (U.S. Pat. No. 5,385,775). The applicants respectfully traverse.

As to Wright, the applicants respectfully submit that the examiner incorrectly equates a foraminous vacuum belt 114 used to retain the initial fibrous matrix 118 on the belt with a three-dimensional image transfer device used to integrate extruded polymer into a three-dimensionally patterned fibrous support layer as in the present invention (see col. 10, lines 34-36). Also, Wright

¹ Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1548 (Fed. Cir. 1983)(citing Soundsciber Corp. v. United States, 360 F.2d 954, 960 (Ct. Cl. 1966)(emphasis added).

specifically says the fibers 126 are “collected on the surface” of elastomeric filaments 118 (col. 11, lines 37-39). Wright states that the microfibers 124 autogenously bond to at least a portion of the elastomeric filaments 118 because the microfibers 124 are still somewhat tacky or molten while they are deposited on (not into) the elastomeric filaments 118 (col. 11, lines 48-54). As further explained at col. 15, lines 10-16, Wright makes it quite clear that the method described therein provides “a multilayer structure” in which layers of the structure were joined by autogenous bonding produced by directly forming one layer upon the other. Thus, fibers 126 are not integrated into a network of previously deposited elastomeric filaments 118.

In view of at least the above differences thereto, Wright does not identically disclose the present claimed invention, nor does Wright suggest or predict the success of the present claimed combination of features.

In view of at least the above, reconsideration and withdrawal of this rejection is requested.

Response to Obviousness Rejection of Claims 5, 6, 8, 13, and 16-21 based on Wright and Hartman

Claims 5, 6, 8, 13, and 16-21 have been rejected under U.S.C. §103(a) as being unpatentable over Wright (U.S. Pat. No. 5,385,775) as applied to claims 5, 6, and 16-18, and further in view of Hartman (U.S. Pat. No. 3,502,763).

According to the Final Office Action, Hartman teaches using a drum 70 with pyramid-like projections 74 for collection of an extruded nonwoven (citing col. 7, line 46 through col. 8, line 19), and that it would have been obvious to one of ordinary skill to combine Hartman’s drum 70 as the collection surface of Wright in order to provide a composite in the shape of a mesh or woven- or knit-like pattern (citing Hartman, col. 7, lines 46-48). The applicants respectfully traverse.

Hartman describes a process for producing non-woven fabric fleece wherein spun filament ranks (46) issuing from spinneret holes (12) and passing through housing openings (63/64) are each collected on a fleece form (14) as a layer, providing a fabric of several layers (e.g., Fig. 10; col. 7, lines 27-45). The filaments can be deposited in the fabric to provide a fabric having a woven- or knit-like pattern by means of gas or stream currents used with an alteration of intensity corresponding to the pattern desired and/or using a selected pattern for the

perforations of the fleece form on which the filaments are collected. (col. 7, lines 46-52).

According to Hartman, this can best be accomplished by using a collecting screen or foraminous form, which on the places of mesh or holes of the woven or knit pattern having elongated guiding studs or pins, which can be pyramidal form, which forms fabrics having a woven- or knit-like structure (Fig. 11; col. 7, line 56 to col. 8, line 19).

As shown in Fig. 11 of Hartman, the method and apparatus of Hartman forms *a grid-like structure formed of the spun filaments alone*. The Hartman method does not provide a composite material, nor is it suggestive of a method for making a composite material in which molten polymer is extruded onto and integrated into a fibrous or filamentary network of a support layer, resulting in an imaged laminate, such as presently recited. Neither Wright nor Hartman are relevant to methods for forming such composite materials.

Further, Wright teaches away from the present invention. Wright describes a method for providing a “multi-layer structure” that is a stretch-bonded laminate adapted to provide improved tenacity in one direction by including autogenously bonded elastic webs and layers and separate gatherable layers in the laminate product (see, e.g., Abstract; claims 1, 23). The multi-layer, diverse functional laminate aspect of Wright’s teachings on the practice and intended outcome of the method taught therein is a critical feature of that reference. Thus, one of ordinary skill would not have considered using Hartman’s drum 70 as the collection surface of Wright in order to provide a composite in the shape of a mesh or woven- or knit-like pattern, as proposed in the Office Action, because Wright requires a composite multi-layer laminate for the intended purposes and product performance desired by that reference. As discussed above, the drum 70 of Hartman forms a grid-like network from the same type of spun filaments alone; it is not configured nor taught for forming a laminate formed of different materials having different properties in different layers of a multi-layer structure such as required and sought by Wright.

In view of at least these reasons, it is respectfully submitted that present claims 5, 6, 8, 13, and 16-21 are not rendered prima facie obvious over Wright and Hartman.

In view of at least the above, reconsideration and withdrawal of this rejection is requested.

It is believed that this application is in condition for allowance, and notice of such is respectfully requested.

U.S. Patent Application No. 10/762,910
Amendment After Final Rejection
Reply to Final Office Action dated March 25, 2008

If the Examiner believes that a teleconference would be useful in expediting the prosecution of this application, the official is kindly invited to contact Applicants' representative of record indicated below.

Respectfully submitted,

/Ramon R. Hoch/
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